

10/507132

DT09 Rec'd PCT/PTO 10 SEP 2004
SEQUENCE LISTING

<110> KUMIAI CHEMICAL INDUSTRY CO., LTD

<120> A gene coding for scytalone dehydratase having conferring resistance to an agricultural fungicidal agent

<130> PH-1735-PCT

<150> JP 2002-66955

<151> 2002-03-12

<160> 12

<170> PatentIn Ver. 2.1

<210> 1

<211> 516

<212> DNA

<213> Pyricularia oryzae

<220>

<221> CDS

<222> (1)..(516)

<400> 1

atg ggt tcg caa gtt caa aag agc gat gag ata acc ttc tca gac tac 48

Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr

1

5

10

15

ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc 96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser

20 25 30

aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att 144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile

35 40 45

gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag 192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu

50 55 60

gag ttc gtc ggc atg gtc tcg agc aag cag atg ctg ggc gac ccc acc 240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr
65 70 75 80

ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc 288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
85 90 95

gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg 336
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg
100 105 110

tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac 384
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
115 120 125

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc 432
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
130 135 140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg 480
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
145 150 155 160

atc ttt gag gac gga cgg gag acc ttt ggc gac aaa 516
Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
165 170

<210> 2
<211> 172
<212> PRT
<213> Pyricularia oryzae

<400> 2
Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr
1 5 10 15

Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser
20 25 30

Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile
35 40 45

Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu

50 55 60

Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr
65 70 75 80

Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
85 90 95

Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg
100 105 110

Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
115 120 125

Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
130 135 140

Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
145 150 155 160

Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
165 170

<210> 3
<211> 516
<212> DNA
<213> Pyricularia oryzae

<220>

<221> CDS

<222> (1)..(516)

<400> 3

atg ggt tcg caa gtt caa aag agc gat gag ata acc ttc tca gac tac 48
Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr
1 5 10 15

ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc 96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser
20 25 30

aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att 144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile
35 40 45

gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag 192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu
50 55 60

gag ttc gtc ggc atg gtc tcg agc aag cag gtg ctg ggc gac ccc acc 240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr
65 70 75 80

ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc 288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
85 90 95

gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg 336
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg

100 105 110

tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac 384
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His

115 120 125

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc 432
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
130 135 140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg 480
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
145 150 155 160

atc ttt gag gac gga cgg gag acc ttt ggc gac aaa 516
Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
165 170

<210> 4

<211> 172

<212> PRT

<213> Pyricularia oryzae

<400> 4

Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr

1	5	10	15
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser			
20	25	30	
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile			
35	40	45	
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu			
50	55	60	
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr			
65	70	75	80
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser			
85	90	95	
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg			
100	105	110	
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His			
115	120	125	
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe			
130	135	140	
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg			
145	150	155	160

Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys

165

170

<210> 5

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 5

gcagtgatac ccacaccaaa g

21

<210> 6

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 6

ttatttgtcg gcaaaggctt cc

22

<210> 7
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer

<400> 7
agttcgaact ggaattcaac cggcacgcat gatgcatttca 44

<210> 8
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer

<400> 8
atgggttcgc aagttcaaaa g 21

<210> 9
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 9

gtggcccttc atggtgacct cct

23

<210> 10

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 10

acaagctctg ggaggcaatg

20

<210> 11

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 11

atcgtcgacg tgaattcgac ttgtaaaagc cgccaaac

37

<210> 12

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 12

ttcgtcggca tggtctcgag catctag

27